**Grade** **Level**: 1st Grade **Dates**: Nov 22 – Jan 7

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| **School Information**  **School**: Copeland Elementary  **School Code**: 060043  **Teachers**: Weegar, P.Long, B.Brown  **Buffer**: Buffer Nov 2 – 21 | **Transdisciplinary Theme**: How the World Works  **Segment of Theme**: Inquiry, interaction, understanding, society and the environment  **Over Arching Concept**: Weather | |
| **Section 1: Overview** | | |
| 1. **Central Idea**: The impact of the climate affects everyone differently throughout the world. | | |
| 1. **Key Concepts**: Function, Causation, Change | | |
| 1. **Guiding Related Concepts**: | 1. **Lines of Inquiry**: | 1. **Teacher Questions (Guided Questions)**: |
| Weather Terms  Precipitation  Observation  Predicting  Weather tools – Thermometer, Rain Gauge  Meteorologist  Scientist  Forecast | 1. People measure weather in different ways. (An inquiry into weather tools.) 2. How weather affects living things (all living things). 3. Water changes as it moves through the cycle. (An inquiry into the water cycle) | **DOK Level 3 & 4**  Explain the definition of weather.  Our favorite types of weather and why?  Explain what a meteorologist does.  How does a meteorologist know when to revise a weather forecast?  Analyze how a meteorologist predicts the weather.  Explain how weather affects the way we dress. |
| 1. **Prior Content Knowledge**: | 1. **Assessing the Lines of Inquiry**: |
| Students will need to understand that weather is not the same everywhere.  Students will need to be familiar with the seasons.  Students will understand how to dress for changing of weather as it relates to seasons. | How will you assess student’s understanding of the lines of inquiry?  Students will be able to identify weather tools – matching the instrument to the function  How Would You Dress on a Sunny/Rainy/Snowy/Windy Day: Weather as a Pattern in Nature (The Ways Weather is Measured)  Student’s will keep a daily weather journal |
| **Section 2: What Are Our Target Goals?** | | |
| 1. **Concept Based Summative Assessment:** | 1. **Targeted Approaches to Learning (highlight 3):** | 1. **Targeted Learner Profile Attributes (highlight 2):** |
| Students will be grouped into teams to write and perform a weather “forecast” for the class. “Forecasts” will be based on the weather journals. Specific dates will be assigned to the groups. “Forecasts” will include: a weather map, weather symbols, weather tools and terminology, current conditions, a written forecast, and three-day forecasts. Students will share all aspects (research, writing, and performance) of the assessment. | Social Skills, Research Skills, Communication Skills. Thinking Skills, Self-Management Skills | well-balanced, caring, principled, open-minded, risk taker, knowledgeable, communicator, reflective, thinker, inquirer |
| **Section 3: What Assessments will be provided in this unit of inquiry?** | | |
| 1. Pre-Assessments:   What assessment will be given at the beginning of the unit to inform current understanding | 1. Formative Content Based Assessments:   What assessments will be given to monitor student learning of content? | 1. Summative Content Based Assessments:   What assessments will be given for students to show mastery of unit content? |
| MyOn assigned weather books and quizzes  Weather Bar Graph  Weather - Observation and Inferences Journal  Determining the Seasons | Daily Weather Journal  Students will design the clothing for the climate their vacation spot.  Quizzes:  Weather  Observing Weather  Weather and Seasons  Class discussions  Graphic Organizers  Shape Poem – Precipitation  Tree in Different Seasons Drawing  Water Cycle Lab | Written test on weather and seasons |
| **Section 4: How will we Facilitate Learning?** | | |
| 1. Provocation:   How will interest into this unit be sparked? | 1. Learning Experiences:   What activities/experiences will help facilitate the learning? | 1. Evidence of Differentiation:   How will the learning experiences be adjusted to different learning styles/abilities? |
| Weather Tool Provocation – The teacher will show students a variety of weather tools and have students explain what they think each tool is used for.  Rain Cloud in a Jar Experiment – Students will use shaving cream and food coloring to simulate the water cycle  The Water Cycle video by Have Fun Learning (YouTube)  The Thermometer Song (<https://www.youtube.com/watch?app=desktop&v=Vk6rP_4wpvk>) | Students will keep a daily weather journal tracking the changes in weather for four weeks.  **Week 1: Inquiry into Weather**  Weather Tools Provocation – Introduction to Weather Tools  Text: Four Things to Know About June Bacon-Bercey – the female meteorologist  Class discussion on what is a meteorologist  How was June Bacon-Bercey's experience unique?  What does a meteorologist say and do on television?  Students will watch a video of the daily weather forecast.  Wind:  Making a Pinwheel:  Students will start by writing down three questions they have for making a pinwheel (Students can write or illustrate their questions)  Using printed directions and help from the teacher (teacher demonstration) Students will make a pinwheel from colored paper.  Student Reflection: How can you use a pinwheel to observe wind  Rain and Snow:  Students will use inquiry skills to describe how rain and snow are alike and how they are different.  Write a shape poem about precipitation. Around the perimeter students will write down works that describe the type of precipitation chosen (Rain drop, snow flake, etc.  Compare and contrast – Weather of the assigned class country compared to the weather of Georgia  **Week 2:**  **Meteorologist presentations**  Students will be grouped into teams to write and perform a weather “forecast” for the class. “Forecasts” will be based on the weather journals. Specific dates will be assigned to the groups. “Forecasts” will include: a weather map, weather symbols, weather tools and terminology, current conditions, a written forecast, and three-day forecasts. Students will share all aspects (research, writing, and performance) of the assessment.  Presentations will be filmed and students will have the opportunity to watch their own weather forecast and write a reflection based on their performance.  **Week 3: Seasons**  Text: Berenstein Bears – Bears, Bears for All Seasons  BrainPop – Seasons <https://jr.brainpop.com/science/weather/>  How does the changes of weather affect gardening – Observing photos  Students will decorate a tree according to each season using crayons. Students will also create a “season’s tree” and students will make ornaments for each season to decorate the tree.  **Week 4: Water Cycle**  Provocation – Rain Cloud in a Jar  Students will watch a video on the water cycle.  The Water Cycle video by Have Fun Learning (YouTube)  Following the video students will complete the Rain Cloud in a Jar.  Students will track how many drops of food coloring it takes for make the shaving cream cloud rain (counting from 1 – 100).  Students will complete an inquiry sheet of observations of their rain cloud in a jar. Following the experiment students will discuss the outcome.  Text: Mary Anderson – Inventor of the Windshield Wiper read aloud  Students will draw two scenes showing what they would see with or without windshield wipers.  \*Students will submit their weather journals. | Students have the choice to write or draw when responding to prompts.  Literacy Paraprofessionals offer support in Literacy.  Small group – Teacher station  Students have the opportunity to work in pairs, individually or in small groups  Modifications to the pinwheel directions as needed  Modifications to Science lab – Rain Cloud in a Jar as needed (teacher assistance, peer assistance, para assistance)  Enrichment:  Team leads within small groups  Research using Ipads on weather patterns, meteorology as a career or by individual interest in varying topics on weather. |
| 1. Learning Experiences in Specials:   How are Specials Courses able to connect to this unit? | 1. Local/National/Global Connections:   How can we connect the content to local/national/global issues? | 1. Student Action:   What learning experiences support potential student-initiated action? |
| Spanish  We will make a Spanish craft activity about the weather vocabulary in Spanish. | Watching local / national weather and comparing and contrast the weather of other areas to the weather of Georgia  Discussion on hurricanes, tornados and other natural disasters that occur around the world. | Learning about weather may prompt students to watch the local weather at home with their parents or listen via radio.  Students may be prompted to look at the weather online (app) before school or in the evening to see what the weather will be like.  Students make a choice on the type of clothes they wear to school based on watching the weather the day before.  Students may decide to research more information on meteorology as a career option.  Students may recreate science labs at home with siblings or younger family members and parents to teach them about the water cycle.  Students may be more conscious about conserving water after learning about water conservation and the water cycle. |
| 1. Student Agency and Play:   What learning experiences provide students with voice, choice and ownership? What play opportunities will be provided by Kindergarten/Pre-K?hands on/STEAM for K-5? | | 1. Resources:   Which resources will you and the students use? This may include people, places, technologies, learning spaces and physical materials. |
| Students will have the experience to be a meteorologist during the culminating task – students have the option of how they will present the weather.  Students will have the choice to work in a small group or independently on assignments and tasks.  Students have a variety of choice in materials for the Shape Poem and Season’s Tree activity. | | Weather Tools  The Water Cycle video by Have Fun Learning (YouTube)  The Thermometer Song (<https://www.youtube.com/watch?app=desktop&v=Vk6rP_4wpvk>)  Brain Pop Jr.  Myon  Weather Journals  Texts:  Four Things to Know About June Bacon-Bercey – the female meteorologist  Mary Anderson – Inventor of the Windshield Wiper read aloud  Four Things to Know About June Bacon-Bercey – the female meteorologist  Check out books from the Media Center  Rain Cloud in a Jar experiment – materials (Shaving cream, food coloring, jars)  Local weather forecasts (TV, app, newspaper) |
| **Section 5: Reflection** (Write the year, change font color for each year) | | |
| 1. Reflect on learning experiences: | | |
| Weegar: Students enjoyed recording the daily weather in their personal weather journals.  2021 Long: Student have enjoyed making pictographs on all four seasons.  B.Brown Students had lots of fun creating illustrations while recording in their very own weather journals | | |
| 1. How were the tasks differentiated to meet different learning styles? | | 1. How did the learning experiences and strategies we used throughout the unit help to develop and show students understanding of the central idea? |
| Weegar: Students worked independently on their personal weather journals. However, if a student needed assistance a peer would assist.  2021: Long: Students worked in small groups to do their weather forecast while others will complete the project on their own.  BBrown : Students were able to window watch while the weather went through several different phases. Some of my students made great observations. They noticed it was cloudy. Rainey, cold and foggy. The students made sure to implement these facts in their pictures as well. | | Weegar: As we tracked the weather daily in Georgia, we also compared the weather in New York. Students were able to reflect that weather is not the same everywhere.  2021: Long; Students learned about Puerto Rico for Christmas around the world and directed their research to weather comparing Christmas traditions and weather withe Puerto Rico and the United States.  Bbrown Students had the pleasure to learn about Barbados for Christmas around the world. We decided that we would like to know what a Barbados Christmas would look like compared to a Myrtle Beach Christmas . |
| 1. What learning experiences best supported students’ development and demonstration of the attributes of the learner profile and approaches to learning? | | 1. How effective were the summative assessments in measuring student learning? What, if any, changes need to be made to the assessments? |
| Weegar: Reading about a career in meteorology has developed an interest in a future career for students.  BBrown : Meteorology has inspired all of my students so many of them are now thinking about becoming one,  2021: Long: Students enjoy learning about different types of weather and the damages that it causes. | | Weegar: Students were able to record the daily weather and present using the “weather language” along with their illustrations.  Bbrown Students were able to document the weather and use the weather language. They also were very creative with their illustrations.    2021 Long: The students were able to identify the instruments and tell about the seasons as well as how to dress for each season. The assessment was well thought out and planned |
| 1. What student-initiated inquiries (questions) arose from this unit of inquiry? | | 1. What student action arose from this unit of inquiry? |
| Weegar: Students asked if Mrs. Weegar’s family in New York had snow yet. (This is because we compared daily the temperature to Georgia. It was quite colder in New York.)  BBrown : Students ask what was the temperature in Myrtle Beach as we completed a T chart to verify how different is Georgia weather from Myrtle Beach weather  2021 Long: Students wanted to know about what causes a tsunami and the type of devastation that it causes. | | Weegar: Some students have expressed an interest in becoming a meteorologist when they grow up.  BBrown : As we watched a snippet of Jurassic park many of my students stated that they will like to be animal doctors when they get older.  2021 Long: Students presented the weather and pretended to be meteorologists. |
| 1. Any additional notes or changes that need to be considered next year? | | |
| Weegar: Not at this time. | | |
| **Section 6: Picture Evidence** | | |
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